

BUILDING THE TACTICAL NERVE CENTER: ENHANCING BATTALION COMMANDER AND STAFF PERFORMANCE IN THE TACTICAL DECISION MAKING PROCESS

**A MONOGRAPH
BY
Major Harry C. Glenn III
Infantry**



**School of Advanced Military Studies
United States Army Command and General Staff
College
Fort Leavenworth, Kansas**

First Term AY 96-97

Approved for Public Release Distribution is Unlimited

DTIC QUALITY INSPECTED 1

19970505 185

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE		3. REPORT TYPE AND DATES COVERED MONOGRAPH
4. TITLE AND SUBTITLE BUILDING THE TACTICAL NERVE CENTER; ENHANCING BATTALION COMMANDER AND STAFF PERFORMANCE IN THE TACTICAL DECISION MAKING PROCESS				5. FUNDING NUMBERS
6. AUTHOR(S) MAJ HARRY C. GLENN, III				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School of Advanced Military Studies Command and General Staff College Fort Leavenworth, Kansas 66027				8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Command and General Staff College Fort Leavenworth, Kansas 66027				10. SPONSORING/MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED.				12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) SEE ABSTRACT				
14. SUBJECT TERMS				15. NUMBER OF PAGES
				16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED	

ABSTRACT

BUILDING THE TACTICAL NERVE CENTER: ENHANCING BATTALION COMMANDER AND STAFF PERFORMANCE IN THE TACTICAL DECISION MAKING PROCESS by MAJ Harry C. Glenn, III, USA, 52 pages.

This monograph examines battalion commander and staff performance in conducting the tactical decision making process. The National Training Center and the Joint Readiness Training Center continue to report battalion commanders and staff have difficulty in executing the tactical decision making process in a time constrained environment. A trained commander and staff are an essential combat multiplier in the rapidly changing, chaotic battlefield of today and the future.

This monograph, using Peter Senge's *The Fifth Discipline*, investigates the five disciplines and their application to the infantry battalion commander and his staff. It will determine if the battalion commander can apply the five disciplines to create a higher performing command and staff system and achieve the necessary leverage to consistently succeed in the tactical decision making process. It will provide a framework for the commander and staff to understand how they think about themselves and their organization; how it affects the commander's decision making and the staff's performance.

Finally, this monograph offers recommendations to enable battalions to become a learning organization. Establishing a climate of openness, creating a mini-learning organization within the battalion staff, subordinate leader empowerment in decision making, and microworlds are all means to create the conditions for establishing a learning environment. The battalion as a learning organization is essential to improving the quality of commander and battalion staff decision making.


SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

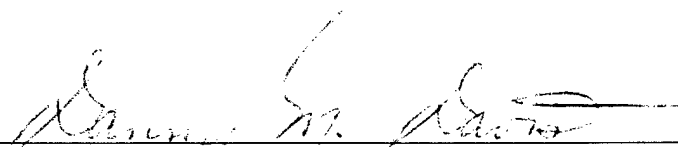
Major Harry C. Glenn, III

Title of Monograph: Building the Tactical Nerve Center: Enhancing Battalion
Commander and Staff Performance in the Tactical Decision Making
Process.


Approved by:



LTC Michael L. Parker, MMAS Monograph Director



COL Danny M. Davis, MA, MMAS Director, School of
Advanced Military
Studies



Philip J. Brookes, Ph. D. Director, Graduate
Degrees Program

Accepted this 13th Day of December 1996

**Building the Tactical Nerve Center:
Enhancing Battalion Commander and Staff
Performance in the Tactical Decision Making Process**

A Monograph
by
Major Harry C. Glenn, III
Infantry

School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

First Term AY 96-97

Approved for Public Release; Distribution is Unlimited

ABSTRACT

BUILDING THE TACTICAL NERVE CENTER: ENHANCING BATTALION COMMANDER AND STAFF PERFORMANCE IN THE TACTICAL DECISION MAKING PROCESS by MAJ Harry C. Glenn, III, USA, 52 pages.

This monograph examines battalion commander and staff performance in conducting the tactical decision making process. The National Training Center and the Joint Readiness Training Center continue to report battalion commanders and staff have difficulty in executing the tactical decision making process in a time constrained environment. A trained commander and staff are an essential combat multiplier in the rapidly changing, chaotic battlefield of today and the future.

This monograph, using Peter Senge's *The Fifth Discipline*, investigates the five disciplines and their application to the infantry battalion commander and his staff. It will determine if the battalion commander can apply the five disciplines to create a higher performing command and staff system and achieve the necessary leverage to consistently succeed in the tactical decision making process. It will provide a framework for the commander and staff to understand how they think about themselves and their organization; how it affects the commander's decision making and the staff's performance.

Finally, this monograph offers recommendations to enable battalions to become a learning organization. Establishing a climate of openness, creating a mini-learning organization within the battalion staff, subordinate leader empowerment in decision making, and microworlds are all means to create the conditions for establishing a learning environment. The battalion as a learning organization is essential to improving the quality of commander and battalion staff decision making.

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	THE ISSUE.....	5
III.	SENGE AND THE LEARNING ORGANIZATION.....	11
IV.	THE INFANTRY BATTALION AS A LEARNING ORGANIZATION...	15
V.	CONCLUSIONS AND RECOMMENDATIONS.....	37
	ENDNOTES.....	40
	BIBLIOGRAPHY.....	48

The process of preparing combat orders varies widely according to the situation. Days or weeks may be devoted to the task by the commander and his staff. On the other hand, instant action may be called for especially in division and lower units. The commander and his staff must be able to adopt their procedure to any situation encountered.¹

US Army Staff Officers Field Manual - 1940

I. INTRODUCTION

In 1940, the Army wrestled with one of the key issues that continues to plague us today. How can the battalion commander and staff make sound tactical decisions, produce clear, concise orders, and accomplish it in a time constrained environment? In many ways, it seems the Army of 1940 faced much of the complexity and uncertainty of warfare that the Army of 1996 struggles to overcome today. The complexity and uncertainty are merely relative to the times and expectations each generation of officer faces in his time.

The commander and staff, using the tactical decision making process, operate within the command and control system to provide solutions to tactical problems within the context of a complex, uncertain, and chaotic battlefield. Battle command describes the process the commander uses to accomplish this difficult mission. FM 100-5 defines battle command as the “art of battle decision making, leading, and motivating their soldiers and organizations into action...”² To achieve this, the commander must see and understand his present state, envision his future end state, articulate a unifying concept of operation, and invoke his force of will to move the force. The purpose of the commander’s actions is to concentrate decisive combat power at the required time and place.³

The commander and staff are integral pieces in the command and control process. The staff is the commander's tool to assist him in achieving battlefield success. "The staff conducts the tactical decision making process to produce effective plans by collectively integrating information with sound doctrine and technical competence to assist the commander in his decisions."⁴ There can be little doubt this task is difficult for the commander and staff to accomplish on a dynamic battlefield and comprises both the science and the art of war.

More importantly, how well do commanders and staffs conduct the tactical decision making process? Can we synchronize combat power? Over the last five years the Army has published a plethora of articles, manuals, and lessons learned pamphlets to improve commander and staff performance in the tactical decision making process. Most unit weaknesses are readily apparent when placed under the pressure and microscope of a Combat Training Center rotation. As LTC John D. Rosenberger, senior observer controller at the NTC, stated: "In combined arms operations, it is no exaggeration to say that a well-trained staff is an element of combat power. Any outfit without one is crippled, even if it is packed full of well-trained subordinate units. As an Army, we simply don't have them..."⁵

This monograph will attempt to answer how we get that well-trained command and control team, the battalion commander and his staff, who can see the enemy, see the terrain, and see themselves, in order to produce tactically sound combat orders which synchronize combat power at the decisive place and time. Currently, our training methodology concentrates on training individuals (Self development or branch schools), the commander and the staff separately (CPX), or modifying the procedures within the

system. Additionally, we have modified our procedures in the Tactical Decision Making Process and provided techniques for commander's to save time during the process.⁶

Unfortunately, the command and staff system is only as good as its weakest link. The individual capabilities, knowledge, and competence of each officer directly impact on the performance of the system. We need a better way; a possible framework for training the elements of the command and control system.

Peter Senge, in *The Fifth Discipline*, shows individuals how they can develop within the organization to adapt to the rapidly changing and often uncertain business world and maintain their competitive edge. Senge believes leaders must create the learning organization, "in which organizations continually learn how to learn together,"⁷ to maintain their flexibility and competitive edge. Senge's five disciplines provide the pillars for building a learning organization. Systems thinking, mental models, team learning, personal mastery, and building shared vision converge to create an organization that continually discovers "how it creates its reality." This constant organizational learning is critical in allowing organizations to grasp uncharted situations and events to achieve the leverage necessary to succeed.

This monograph investigates Senge's five disciplines and their application to the infantry battalion commander and his staff. It will determine if the battalion commander can apply the five disciplines to create a higher performing command and staff system and achieve the necessary leverage to consistently succeed in the tactical decision making process. It will provide a framework for the commander and staff to understand how they think about themselves and their organization; how it affects the commander's decision making and the staff's performance.

The initial phase of this research project will establish the foundation and requirement to assess battalion commander and staff performance in the Tactical Decision Making Process. The author intends to do this by presenting the results of focused research studies that analyze staff performance and through the raw data provided in CTC take home packages.

Upon establishing the need for the research problem, the author will briefly review Senge's five disciplines and apply them in the context of an infantry battalion. This review primarily looks at the current writings on learning organizations. While this section will review Senge's ideas for the reader, the assumption is that the reader has a general understanding of Senge's principles or will read Senge's book to enhance his understanding.

The preceding section established the need for the research project and the application of the theory to the infantry battalion. The final step in the research methodology is to determine the strategies and applications of Senge's theory to improving the battalion commander and staff performance in the TDMP. To accomplish this, the author will analyze the battalion commander and staff to illustrate the archetypes prevalent in the organization, providing tools and strategies for the commander to develop a learning organization. Consequently, the result is improved performance in the tactical decision making process.

...it became apparent that one of the most important elements in the effectiveness of a combat organization is the command and control system and those personnel who man it, namely the battle staff.⁸

Joseph A. Olmstead in *Battle Staff Integration*

II. THE ISSUE

The inability of battle staffs and commanders to operate effectively and efficiently in the command and control system is not a new dilemma for the Army. History is replete with examples of commanders and staff struggling to provide sound tactical plans, synchronize combat operations, and disseminate critical information in a high stress or combat environment. For example, Dr. Joseph Olmstead began his study of command and control at the request of the Command and Staff College in 1963 when he was a member of the faculty. His research continued for nearly thirty years and resulted in one of the most comprehensive research projects on battle staff effectiveness and training.⁹ Combat history and research projects are not the only sources of deficiencies in the command and control process. The Joint Readiness Training Center (JRTC) and the National Training Center (NTC) continue to emphasize battle staff integration, synchronization, and staff officer competency as serious problems for battalions.

To assess the problems associated with the battalion command and control system, the author surveyed twelve rotations, six at the NTC and six at the JRTC. The rotations occurred in fiscal year 1996. The twelve rotations resulted in a total of eighteen infantry battalions, both light and mechanized, being studied. Additionally, several research projects focused on battalion-level command and control, battle command staff training,

battle staff integration, and the tactical command and control process. Reputable research agencies including Rand, Institute for Defense Analyses, Army Research Institute, and the Center for Army Lessons Learned contributed substantial research energies to battalion level command and control.

Before addressing the results of the training center rotations, it is important to understand some of the deficiencies with using training center Take Home Packages (THP) to show trends and unit shortcomings. First, unit Take Home Packages reflect the observer/controller's assessment of the unit. This assessment primarily concentrates on several key issues the unit can improve during home station training. This assessment focuses on the battlefield operating systems (BOS) and represents trends that the observer/controllers detected and does not focus on in depth technical analysis. However, the observer/controllers do base their assessments of the unit on current doctrinal manuals.¹⁰

In assessing the commander and battle staff during training center rotations, the author limited his analysis to only the planning phase of a tactical operation. Consequently, the research process ignored the preparation and execution phases of tactical operations. Although JRTC and NTC provide each unit with a Take Home Package, the focus and discussion within the THP are slightly different between the training centers as well as within the observer/controller teams at the respective training centers. This required the author to consider each training center's methodology and focus in order to generalize the trends between the training centers. Consequently, three general categories describe the key problem areas. Battle staff integration, individual battle staff officer and commander competence, and execution of the tactical decision

making process provide the framework for an assessment of battle staff and commander performance in the planning process.

Battle staff integration is not a doctrinally defined term. However, it is a term commonly found in the training center THPs.¹¹ This term generally refers to the staff's ability to interrelate, coordinate, understand the impact of information on their specific staff function as well as how it may affect the other staff officers and their respective battle field operating system. The most complete definition of battle staff integration is provided by Dr. Olmstead, in *Battle Staff Integration*: "the force which melds the roles, attitudes, and activities of battle staff members...closely related to, if not identical with, 'teamwork'...A unique feature of the battle staff as a team is that, at one time or another and to some degree, any and all of its functions may be performed by one or every member, either individually or collectively."¹² In reviewing fiscal year 1996 THPs, the training centers recognized poor staff integration nearly 78 percent of the rotations.¹³ The 1994 RAND study on *Battalion-Level Command and Control at the National Training Center* further supported this assessment. In the RAND study, researchers determined from the FY 1989 THPs that "17 of 26 task force staffs had significant problems functioning as a group, resulting in an inadequate plan."¹⁴ Furthermore, the study reviewed THPs from FY 1989 and FY 1993 and rated "two thirds of the task force staffs untrained in group activities" that resulted from limited staff cohesion.¹⁵

The inability of staffs to integrate their information and synchronize their actions resulted in inadequate tactical plans. A simple example of failed staff integration is the battalion intelligence officer (S2), the operations officer (S3), and the fire support officer (FSO) failing to coordinate their actions. Consequently, the S3 develops a plan which

does not defeat the enemy's course of action while the FSO fails to target the templated enemy positions. Furthermore, the battalion logistics officer (S4) failed to inform the S3 and commander of significant ammunition shortages or maintenance problems that resulted in an insupportable course of action. Simply put in a JRTC THP, "the staff sections operated in mutually exclusive operations independent of the rest of the staff" consequently the "staff was never able to synchronize its operation or integrate its action to support the commander's intent."¹⁶

While staff integration focuses on group cohesion, integration, and synchronization of actions, another trend evident in the THP review focused on staff officer knowledge, competence, and to a lesser extent commander competence. In a 1991 report, Army Research Institute (ARI) concluded a significant problem for battalion battle staff performance was that staff technical and tactical training was limited generally to on the job training.¹⁷ The staff's ability to analyze the tactical situation, understand the impact on their specific staff functional area, and make sound recommendations to the commander regarding their functional area sufficiently defines battle staff competence and knowledge. It is important to note that the staff officer must have the requisite technical, as well as tactical, knowledge to understand the capabilities and limitations their functional areas provide to, or detract from, the solution of the current tactical problem. A review of the training center rotations showed that observer/controllers assessed battalion level staff officer's knowledge proficiency inadequate in over 67 percent of the rotations.¹⁸ On a better note, the training centers reported commanders provided knowledgeable guidance and battle command over 33 percent of the time with negative comments limited to only 17 percent of the time.¹⁹ For the purpose of this study, the

commander and staff required competencies demand consideration because it is the synergistic effect achieved between the commander and staff's shared vision of the battlefield that contributes to battlefield success.

Another area the training centers commonly report is the staff's ability to adequately conduct the tactical decision making process in a stressful, time constrained environment. When training centers focused on this aspect of commander and staff performance, they considered the staff's ability to conduct the decision-making process. This included the ability to conduct mission analysis, develop courses of action, and conduct wargaming. The RAND study remarked task forces' ineffectiveness often required the commander and operations officer to develop the course of action themselves. This practice normally resulted in a weak course of action, inadequate wargaming, and poor staff integration. In most cases, observer/controllers noted the two officers developed a plan; however, it did not consider all available information or all the BOS functions.²⁰ The author's survey of FY 96 training center rotations showed over 67 percent of the task forces inadequately performed or understood the tactical decision making process. Several observer/controller comments in the THPs characterize the deficiency: (the staff)..." while familiar with the steps, did not adhere to the process"²¹ ... (the staff) "lacked a fundamental understanding of the TDMP."²²

Most units can perform or perceive they can perform the tactical decision making process in training at home station. However, the combat environment of a training center normally exposes the flaws and weakness within the staff. In most cases, commanders and staffs believe they have conducted sufficiently rigorous staff training to meet the demands of a training center rotation. As the ARI study on *Battle Staff*

Training opined, commanders and staff cannot stretch their abilities, knowledge, and experience to overcome the stress and rigors of an observed time constrained environment. Typically, the stronger staff officers and commanders compensated for or overlooked the deficiencies of less capable individuals in a typical training environment.²³

Battle staff integration, staff officer competence, and the ability to execute the tactical decision making process are areas which NTC, JRTC, and research groups observed shortcomings within the command and control system. These shortcomings are not the only ones that involve the command and control process nor are they always the most important. It must be stated some battalions and task forces had positive comments in these areas and still lost numerous battles at the training centers. The purpose of this study is not to determine whether poor staff and commander planning resulted in defeats at the training centers. Those who have rotated at the training centers know that all aspects of their organization are closely scrutinized and many of these units are still extremely successful in combat. It is important is that a strategy be implemented so that commander and staff performance is improved and the friction and planning deficiencies at the battalion level are minimized to provide the best possible tactical solution in the time allocated.

III. SENGE AND THE LEARNING ORGANIZATION

In the previous section, staff integration, individual competence, and inability of the battalion staff and commander to adequately conduct the tactical decision making process characterized some of the issues battalion nerve centers face at the training centers. These shortcomings detract from the commander and staff's ability to function in the command and control process. The battalion commander and staff must be capable of coping with the "highly turbulent, complex, and unpredictable environment" of combat or simulated combat in a training environment. It is critical for these units to respond flexibly to the constant flow of situations characterized by high degrees of uncertainty. In order to do this, Dr. Olmstead believed they search out, identify, and interpret situations as they develop, solve problems as they occur, generate flexible decisions, and cope with shifting situational demands.²⁴

Similar to the soldier's description of the current and future battlefield, the business world describes itself in a very similar fashion in the global market. Business considers its operating environment to be a highly complex, turbulent, and rapidly changing requiring business organizations to achieve a competitive advantage through flexibility and agility to compete in the global marketplace "anywhere, anytime, and anything" to overwhelm the competitive challenge.²⁵ Business provides focus to their vision by defining an endstate much as a Division commander may define success for a combat operation by the endstate.

To combat such uncertainty in the business world, Peter Senge believes organizations must be able to learn in order to not only survive but excel in the global

market. This will allow organizations to make good decisions in the complex, ever changing landscape of the business market. The Army in its own way seeks to give commanders the tools to survive and win in the complex, chaotic, and lethal battlefield of today and the future. The similarities between business and the Army are striking. Although the commander and his organization risk death with each fight, the business leader and his organization risk something which may be just as equally frightening to him...his job.

Peter Senge believes for the organizations in today's world to thrive and not merely survive, they must become learning organizations. A learning organization is "an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning together."²⁶ A learning organization should not be confused with the typical authoritative, hierarchical organization you often find in the business world as well as the Army today. Learning organizations continually strive to reach their potential. To shape its future and meet its potential, learning organizations must track the environment, understand change in the environment and adjust to that change. Individuals and groups in a learning organization are continuously learning and using that learning to create their future instead of reacting to it.²⁷

To create the learning organization, Senge presents five disciplines which become the bedrock of the learning organization. Personal Mastery is used to describe the process of individual growth and learning. Individuals with personal mastery approach life as a piece of art and continually create their future. Senge believes that organizations cannot

learn until their members begin to learn. Personal mastery becomes a discipline by continually clarifying what is important to and constantly try to see our reality more clearly.²⁸ Individuals with personal mastery have a personal vision for themselves in life. In order for a group to understand the direction in which they are headed, they must have a shared vision.

Shared vision is the next stone in the foundation of the learning organization. This vision is one in which the individuals within the organization share among themselves. This vision cannot be imposed upon them by those leading the organization. A shared vision is one in which the members of the organization hold a common picture of the future they seek for the organization. In order to make the shared vision common among all members of the organization, leaders must foster genuine commitment and not compliance.²⁹ As individuals work to reach their shared vision and the success of their organization, they make their organization greater than the sum of its individual parts through team learning.

The discipline of team learning is one of the characteristics which make organizations truly great. In team learning, numerous individuals work together with a common vision toward a common purpose. This outcome allows the group to solve problems and offer solutions far better than anything the individual is able to create. Often, we think of outstanding sports teams which achieve a greatness much more than the sum of the individual talents. In the Army, we often see infantry squads or tank crews who achieve that synergistic effect when each member operates and performs at a higher level. "Team learning is the process of aligning and developing the capacity of the team to create the results the members truly desire."³⁰ Organizations which reach team learning

are focused on a shared vision and are confident in their own abilities. They realize they observe themselves, each other, and their organization through a series of lens and filters. They understand these filters and lens affects how they relate with people. They make better decisions by examining the mental models they hold.

Understanding and recognizing mental models comprise the fourth discipline of the learning organization. Mental models are the preconceived ideas, generalizations, and assumptions which affect the way we interact with people, influence the way we make decisions, and how we understand the world in general.³¹ The discipline of understanding mental models begins when each individual looks at himself in the lens through which he looks at others and turns the mirror inward to recognize the mental models he holds and how it affects his relationship with others. By aggressively identifying the mental models we hold, it can help us to communicate more effectively, listen to what others have to say and leave our thinking open for examination.³²

The foundation of the four disciplines is held together by the mortar of the fifth discipline - systems thinking. Systems thinking provides a means for the organization and the individual to understand and see the bigger picture, to move beyond cause and effect or linear style thinking. It allows us to see the entire continuous process of an action instead of the individual snapshot of an event. Systems thinking allows the individual see how all the disciplines interrelate to each other and understand that a learning organization is not created from the individual actions of each discipline but through the process of the integration of all the disciplines which makes them greater than the sum of their parts.³³ Systems thinking is needed more than ever today to bring clarity and understanding to the complex, adaptive environment we live in whether it is the market place or the battlefield.

Command and staff personnel are selected based on their capabilities and it is important not to separate commanders from staff personnel with whom they have worked in harmony.³⁴

Tukhachevski

IV. THE INFANTRY BATTALION AS A LEARNING ORGANIZATION

Senge describes the path to a learning organization as a creative process. One in which the organization and its members strive toward a shared vision with an underlying sense of purpose in which all members attempt to create the organizations future by understanding the natural interrelationships between themselves, their organization, and their environment. The infantry battalion is very similar to the organization described above. The infantry battalion is focused by the vision - its endstate. Its members have a sense of overarching purpose - their mission. The battalion commander and staff seeks to understand the relationship between themselves, their enemy, and the terrain in which they operate. Combat itself is a system of systems in which you have the friendly forces and enemy forces interrelated with each other by the system of combat and the objective they attempt to accomplish. However, can we create that learning organization at the infantry battalion where we all work together to create our own future? To do that, it is important to first explore why organizations fail to become learning organizations and secondly to further develop Senge's five disciplines at the battalion commander and staff level.

In order to understand some of the obstacles in the path to creating a battle staff and commander learning organization, it is important to examine what Senge describes as learning disabilities as well as mental models which may be present in the infantry battalion

nerve center. Learning disabilities keep organizations from learning or at least keep them from learning well. Learning disabilities prevent organizations from recognizing the impending threats the organization will face, understanding the ramifications of those threats, and from developing courses of action to successfully deal with the threats.³⁵ These learning disabilities pervade all organizations to some extent to include the infantry battalion. They impact on how individuals in the organization think and act. "I am my position"³⁶ describes how most people recognize themselves, as the task they perform, instead of as the greater purpose they serve. In this case, they see work as little more than a job and see themselves as having very little impact on the system. Each individual tries to optimize his performance in the system while failing to understand the necessity to integrate into the system. On the battalion staff, this may be seen in the individual officers who represent the combat multipliers on the staff. Each officer with his own stovepipe requirement to handle their individual specialty like fire support, engineering, intelligence, or maneuver. The fire support officer plans fire support for the operation to the best of his ability. Likewise, the engineer, air defense, logistics, and operations optimize their respective battlefield operating system. A better way to approach that would be to identify yourself as the individual whose purpose is to integrate his combat multiplier into the plan to best support the commander's intent for the fight.

"The enemy is out there" is another learning disability you can find at the battalion. This learning disability results from a nonsystematic view of the organization and the environment in which the individual serves. Individuals in organizations tend to look outside the organization or above their echelon as the source of a problem. They are less likely to look at themselves first and understand their role in creating the problem.³⁷ For

instance, the company supply sergeant may feel he always gets poor support out of the battalion logistics officer or the supply system in general. The supply sergeant consistently over orders every supply requirement because he believes the system is too slow or he never receives the total amount he needs. This action, in turn, requires the battalion to reduce their stockage and reorder more supplies consequently taking money out of the budget which was forecasted to be spent on something else. Unfortunately, this nonsystematic approach continues to allow individuals to focus in their own little lane, never understanding the impact of their actions on the larger system.³⁸

Another learning disability often found in an infantry battalion is the illusion of taking charge.³⁹ Taking charge in the military is something in which every leader prides himself on. Often, we describe our leadership style with phrases such as “lead, follow, or get the hell out of my way” or possibly “when in charge, take charge.” Taking charge in the infantry is ingrained in every member of the organization. It is necessary to overcome the inertia on the battlefield when confusion and casualties threaten the momentum of the attack or the coherency of a defense. However, in a less dangerous environment, this attitude often causes the leader to treat a symptomatic surface issue without understanding the deeper systematic issue and the leader’s role in creating or contributing to the issue. I once observed a battalion operations officer grow frustrated during a training exercise with the time it took the tactical operations center (TOC) personnel to set up the TOC. The longer it took, the more frustrated he became. Finally, he stepped in and took “charge” of the operation. By the time he had “fixed” the problem, he had gained an entire audience of the noncommissioned officers and soldiers who typically are responsible for setting up the TOC. The operations officer’s crew

became the officers who typically work in the TOC. While many of these officers were integral to the setup of the TOC, the operations officer was not. Consequently, the operations officer was finally able to put the full TOC into operation a full two hours later than the normal TOC crew took. Had the operations officer taken a few minutes to evaluate the situation and understood his role in the perceived poor TOC setup he would have realized several things. First, he had never supervised training or participated in the TOC setup drills. In most cases, he always made sure he was not around when it happened. By his intervening, the operations officer actually prolonged the time to setup - an unintended consequence. And lastly, he demonstrated a lack of trust in his noncommissioned officers ability to accomplish a task they were responsible for. The underlying issue in this entire problem which the operations officer never saw was his own lack of emphasis and concern in the training of TOC personnel. Often, the illusion of taking charge is merely "reactiveness disguised as proactiveness."⁴⁰ Until the individual can see how he contributes to his own problem, he will continue to react to the problems he faces.

Another learning disability closely related to the illusion of taking charge is the fixation on events. This occurs when our thinking is dominated by the day to day activities and brush fires which need to be fought and solved. Senge believes organizations fail, not because of the day to day crisis which they face, but because of the slow cumulative build up of gradual processes.⁴¹ Consider the battalion commander who continually convenes his staff for an "emergency" meeting for new crisis during morning physical training. While he and his staff are able to solve the immediate issue, he puts into place a slow gradual process which tells his staff and his battalion that physical fitness is

not an important issue to him. While this action is hardly likely to cause the demise of his battalion, it will impact on the combat readiness of his outfit.

The boiled frog parable and the delusion of learning from experience are two other disabilities organizations face. The boiled frog parable describes a pot of boiling water and a frog. If the frog is thrown into the boiling pot of water, he will jump out to save his life. If the frog is placed in cool water which is slowly heated until it is boiling, the frog remains in the pot and dies. The frog never recognizes the slow, gradual increase in temperature and consequently, never reacts to save its life.

The boiled frog parable illustrates how organizations maladapt to slow, gradual process which threaten the very survivability of the organization.⁴² This phenomenon occurs when organizations are so busy executing day to day operations and constantly shoot the immediate threat at the twenty five meter line, they often fail to recognize the long range shooter who eventually kills them. While the frog is slowly boiling in the pot fails to see the gradual danger building that will eventually kill him, the leader often is never able to see the consequences of putting the frog in the pot.

For example, the battalion operations or executive officer plan to conduct staff orders drill training. However, each time they conduct the training, a variety of “emergencies” occur which prevent the key players from participating or force the complete cancellation of the training. Unfortunately, the end result is the battalion staff is untrained to meet its primary responsibility - to conduct the tactical decision making process.

The delusion of learning from experience describes the situations most leaders face today. While the leader learns best from experience, he will rarely ever directly

experience the consequences of many of his most important decisions.⁴³ Limited time in a position reduces the individual's ability to see patterns involved in complex issues. Senge described system's operations and the associated problem that "cause and effect are not closely related in time and space."⁴⁴ Consider the impact of consistently funding operations and training by borrowing from post maintenance and infrastructure renovation. Although we must be trained and ready, the leader who decided to stop funding infrastructure upgrade and maintenance will not be present when buildings, roads, and power grids are no longer capable of being repaired.

The myth of the management team helps describe what often occurs within the typical battalion commander and staff team. This learning disability explains the typical dynamics which occur when you bring together the leaders and problem solvers of the organization. While the appearance is given of a cohesive team front, the true picture shows individuals protecting their own turf and prompting their own agendas even if it is not in the best interest of the organization. On the battalion command and staff team, the battalion staff officers represent the battalion commander's individual experts in specific functional areas to include personnel, logistics, intelligence, and operations. Each officer has the responsibility to protect his functional area in the interest of the battalion commander. Competition for resources, time, and influence may cause individuals to protect their specific areas and not the battalion as a whole.

Another manifestation of the management team is they seem to break down under crisis. While they may function well for routine issues, they cannot function when confronted with complex issues. This occurs when the management team is unable to effectively explain their thinking on complex issues. Rather than admit they do not know

the answer, they advocate their position rather than attempting to present a better solution as a group. This inability to solve the problem forces the individual members of the team to protect their own turf and agendas.⁴⁵ This learning disability may manifest itself during operations when the commander and staff are in a high stress, low sleep environment like combat or a training center rotation. As the staff is continuously challenged with complex problem solving, coupled with fatigue, their ability to integrate as a cohesive team may be reduced.⁴⁶

Learning disabilities and mental models affect how we see our current reality - how we see events and how we see ourselves and people around us. This lens impacts on how the commander and staff interrelate during the tactical decision making process and affects how we arrive at decisions. Mental models form deeply ingrained images which impact on our thinking and acting. They are active and when unrealized shape how we act. Carl Builder in *The Masks of War* described the deeply ingrained personalities and beliefs which shape the thinking and behavior of the Army.⁴⁷ In essence, the mental models which the Army carries for itself. For example, "the Army's first mask is shaped by its in depth roots with the citizenry, its long and intimate history of service to the nation, and its utter devotion to country." For the Army, it is expression of "who the Army thinks it is and what it believes in."⁴⁸ This belief, this mental model of how the Army views itself, as well as the way in which it views the other services, impacts on how it relates and makes decisions. Builder goes on to address the impact of the masks on such areas as procurement, missions, research and development, strategy, as well as concepts of war. Additionally, Builder documents one of the great mental models we face in the Army - the branches. "The guilds of the Army, particularly the powerful combat arms branches -

freeze the Army by their understandable interests in maintaining the continuity and stability of internal power.”⁴⁹ This mental model which the Army holds, and the learning disability of the myth of the management team, influences the way we see reality.

The impact of the branch mental model cannot be underestimated. At battalion level, commanders and staff must continue to assess how they interrelate to augmentations to the battle staff. Battalion level is the first place commander’s have a staff of different combat arms and service members. This allows the commander to synchronize the battlefield operating systems. However, commanders and staff must realize each branch reflects a different perspective for tackling the tactical problem. As one author wrote, “Each officer and NCO is schooled and bred in the culture and tradition of his BOS.”⁵⁰ Additionally, “each branch has its own separate schoolhouse, doctrine and combat developments fiefdom emphasizing differences, rather than similarities, in the branches.”⁵¹

The Army’s branches provide a great sense of history, individual and collective pride to the Army. Nonetheless, an individuals branch and branch training affects how they approach a tactical problem and integrate force multipliers. For instance, consider how the air defense officer or the Air Force air liaison officer are perceived by the commander and staff. The air defense officer is from a different branch and the Air Force liaison is even from a different service. At the National Training Center, a common trend is for “courses of action to be dictated by the commander or one developed by one or two officers without staff input.”⁵² Another trend is the Fire Support Officers and Air Liaison Officer are expected to participate in wargaming only as observers.⁵³ Branch mental models are not the only reason the battlefield operating systems are not fully integrated

into the tactical decision making process; but, they, as a minimum, affect how we solve our tactical problems.

Another mental model which has been resurrected is the “zero defects mentality.” This organizational characteristic was first documented in the 1960s and 1970s. It was characterized by a “ticket - punching” officer corps and a micromanaging mentality. In a zero defects organization, leaders fail to trust subordinates to do their jobs. Leaders will not accept mistakes in the performance of subordinates. Army Chief of Staff General Dennis Reimer recently discussed the results of an Army Research Institute command climate survey. The survey stated the Army is a zero defects organization. General Reimer discussed the impact of zero defects when “telling the truth ends careers quicker than making a stupid mistake.”⁵⁴ Officer micromanagement and crisis management stifle individual initiative and creativity which is considered essential to growing leaders who can exercise innovative solutions on the battlefield.

The zero defects mentality is a negative mental model which impacts on how we approach problem solving. It can influence the possible solutions we are willing to consider and the amount of risk we are willing to assume in the solution. Additionally, it may stifle the very same initiative and creative problem solving we try to instill in ourselves and our subordinates. The zero defects mentality smothers the learning an organization tries to create. As General Bruce Clarke said: “You must be able to underwrite the honest mistakes of your subordinates if you wish to develop their initiative.”⁵⁵

Mental models are both positive and negative. Builder’s mask, Service to Nation, is an extremely positive mental model for the Army. Service to nation is a core value,

part of the Army's ethos and is cultivated in the newest soldier to the highest General. It describes why we are. Although these mental models, both positive and negative, affect how we think; more importantly, they impact on how we act. They impact on staff integration. As stated previously, one of the major deficiencies units face at the Combat Training Centers is the integration of the combined arms into the plan. Often, input from certain elements is ignored or deemed unimportant at the time. Mental models impact on how staffs interrelate. They impact on decision making. In order to gain leverage in decision making, the individual must recognize and overcome mental models.

Mental models offer the highest leverage for change.⁵⁶ The most important thing an individual can do to achieve leverage in dealing with mental models is to bring them out in the open. If it is an individual, he must bring to the forefront of his thinking through skills of inquiry and reflection. Reflection is the skill of "slowing down our thinking processes to become more aware of how we form our mental models" and "inquiry is holding conversations where we openly share views and develop knowledge about each others assumptions."⁵⁷ If an individual is not practicing reflective thinking, he has a hard time in actually understanding what is said. For example, the battalion assistant operations officer is conducting a briefing to the commander on the feasibility of an infiltration attack into the enemy's rear. His assessment is that the distances are too great to accomplish the infiltration because insufficient time is allotted. However, if the commander is looking through his lens, focusing through his branch specific mental model he sees something very different. In the commander's mind, his rapid jump to conclusion may have been to disregard the chemical officer's (assistant operations officer) advice because he does not understand infantry tactics. Mental models are the prejudice and the

stereotypes which form our thinking. They are also the positive and negative ideas we hold about our organization. As Ralph Waldo Emerson stated, "What you are shouts so loudly in my ears I cannot hear what you say."⁵⁸ Unfortunately, what you are to that person is defined by the mental model and assumptions he holds in his mind.

Breaking down mental models begins with personal mastery. By continuing to understand how we see our reality and integrate with others, we begin to understand how mental models affect our actions and thinking. To develop personal mastery, the individual must maintain a creative tension created by holding our personal vision (what we want) and a clear picture of our current reality (where we are in relationship to where we want to go).⁵⁹ This creative tension establishes the conditions for life long learning. While personal mastery is a state of mind, it is grounded in confidence and skills. For the battalion commander, his ability to create a picture of his future and his ability to see his current reality are essential to battle command. Battle command comprises the ability to see and understand your current reality in terms of combat power, capabilities, and requirements to accomplish the mission and visualizing in your mind the "relationships between enemy forces, friendly forces, the environment and the desired endstate in time, space, and purpose."⁶⁰ Within this process, the commander communicates his vision (intent) to his command and through his maneuver units and his supporting arms dictates the future endstate on the enemy to accomplish his mission. The commander's personal vision, shared by every man in his outfit, produces the synergistic effect the commander seeks to impose on the enemy. This is the core of the battle commander's competencies.

The commander, however, is not alone in the battalion nerve center. The commander has a staff whose purpose is to assist him in making and executing timely

decisions.⁶¹ The staff accomplishes this by making estimates and recommendations, conducting staff coordination, synchronizing combat power, and a myriad of other tasks which assist the commander in visualizing the battlefield. To develop personal mastery, the battalion staff officer must achieve individual battle staff competency. Dr. Olmstead, in *Battle Staff Integration*, determined role specific individual skill as a critical function for effectively functioning battle staffs. Role specific individual skills are activities performed by individual members which strictly address the functional areas for which they are responsible.⁶² However, as the author's analysis of the of training center rotations as well as research studies conducted by the Army Research Institute indicated, many individual staff officers are not armed with those skills. As ARI reported, "The deficiencies in individual knowledge and comprehension detract from the staff's collective ability to synchronize activities and to integrate the battle staff."⁶³ For example, in a recent NTC Take Home Package, the Observer/Controller team reported the battalion S-2 was unable to effectively conduct the Intelligence Preparation of the Battlefield process to include difficulty in analyzing terrain or providing the commander with the enemy's most likely course of action. This directly contributed to poor course of action development by the operations officer.⁶⁴

While competency is a cornerstone for the battalion staff officer to create personal mastery, he must continue to examine how he relates to fellow staff officers and even the commander. He must examine his mental models and identify learning disabilities which impact on his actions and decision making. The battalion commander can play an instrumental role in creating his own future as well as fostering personal mastery in his organization, particularly his battalion staff officer. While Senge admits it is impossible to

force personal mastery on someone, the battalion commander can create the conditions for fostering personal mastery through his own example.⁶⁵ The commander's organizational climate must reflect his values regarding personal mastery. The commander may foster this environment through the professional exchange of ideas and dialogue between his staff officers as well as demonstrate a genuine concern for their professional growth. This is easier said than done given today's pace of operations. Nonetheless, the commander's leverage in building the tactical nerve center begins with the development of individual staff officers' functional area competencies. In Army terms, the commander creates personal mastery throughout the battle staff by leading by example.

Personal mastery and understanding personal mental models, as well as understanding mental models held by an organization as a whole, provide the foundations of the learning organization. They provide the means for individuals to reflect upon their current reality and present a new framework to understand how they relate with others. Team learning and shared vision extend the creative process of a learning organization. Both team learning and shared vision tap the unlimited capabilities of a group learning together, focused by a commonly shared vision and an underlying sense of purpose for themselves and their organization which send their creative capabilities to new heights.

In the infantry battalion, the commander can develop a shared vision with his staff; however, when executing a mission the vision shared is created by the commander. General William Depuy described the infantry squad as "11 men 1 mind. You can't see an infantry squad - it is an idea that exists only when jointly held by its members."⁶⁶ Like the infantry squad, the battle commander and staff must be of the same mind - the staff is an extension of the commander's thought and will to achieve his battlefield mission. Shared

vision gives an organization an aim and purpose to its activities. It is essential for the organization's focus and energy for learning.⁶⁷

While the commander creates the vision for mission success on the battlefield, the preparation of the tactical nerve center should result from a vision shared between the staff and commander. This training vision should represent the overarching goal, purpose, and relationship between the staff - commander team. This shared vision provides a rudder for staff actions in day to day operations allowing the staff to take risks and foster initiative. The final result will change the way individuals think about their organization. It becomes "our" organization instead of "their" organization.⁶⁸ Another advantage of having an overarching shared vision is it provides clarity to the decision making process.⁶⁹ This clarity allows all members of the team to understand what is important. It provides focus to the day to day activities of the team in support of the overall vision. In a combat or simulated combat environment, the shared vision, mission and endstate, focuses the staff on what is important to the commander to successfully conduct the mission.

The importance of a shared vision is not new to the Army. One of the characteristics of outstanding combat arms battalions was "values shared by all." In these battalions, their overwhelming sense of purpose was a focus on combat. "If it does not contribute to readiness for combat, the unit looks long and hard at fighting or ignoring the requirement."⁷⁰ Additionally, these excellent combat arms battalions valued risk taking, creative new ideas, accepted the occasional failure, and learned from their mistakes.⁷¹ These shared values were woven within a shared vision of combat readiness.

The benefits of focus on shared vision was demonstrated by TF 2-14 INF in Mogadishu on 3-4 October during their combat operations to relieve the encircled Rangers. As General Meade, 10th Mountain Division commander at the time, stated: "I am one of those who believe that only a really extraordinary infantry battalion could have successfully rescued the Rangers that night. TF 2-14 was clearly outstanding."⁷² LTC William David, TF2-14 INF commander, credited the battalion's success "to the devotion of the overwhelming majority of our creative energy and resources in an effort to achieve high performance in each of the battalion's core performance areas: physical fitness and mental toughness, marksmanship, and realistic maneuver live fire exercises."⁷³ In essence, this became the shared vision of the battalion.

The foundation of any shared vision in an organization is built upon individual personal mastery.⁷⁴ Personal mastery begins with creating a vision for oneself and understanding one's role in creating their future. Shared vision must be rooted in the individual's personal vision if the organization expects to achieve a commitment to the organization's shared vision instead of compliance.⁷⁵ The commander's personal vision for how he wants to fight must be communicated every day. The battalion staff must understand how he thinks and what is important to him in order to develop a shared vision during combat operations. Because the commander must bring his will to bear on the enemy, the staff cannot develop a genuine shared vision with the commander. However, they must have their vision and understanding aligned with what the commander expects to achieve. This is developed through constant dialogue between the staff and commander in all training. During Operations JUST CAUSE and DESERT STORM, subordinate commanders reported that they understood how their commanders expected them to fight

because they understood it from their training. Furthermore, all of the commanders felt that a clear understanding of the commander's intent (his personal vision) was imperative for planning and preparing for combat operations.⁷⁶ The battalion commander's vision provides the compass for his battalion staff and subordinate commanders to operate within the bounds of his intent. It provides the boundaries of acceptable risk and stimulates the initiative sought in all soldiers in combat. The battalion nerve center, commander and staff, must be aligned. This relationship between commander and staff was best described by General Dwight D. Eisenhower: "The teams and staffs through which the modern commander absorbs information and exercises his authority must be a beautifully interlocked, smooth-working mechanism. Ideally, the whole should be practically a single mind."⁷⁷

The battalion's shared vision provides the azimuth for the conduct of the outfit at all times. It is strategic by nature. If the vision is not strategic, the organization will remain embroiled in day to day emergencies, constantly taking the cause and effect approach and never a systematic view of themselves and their organization. By maintaining their shared visions, organizations constantly assess themselves looking at their current reality and the vision of their future. This maintains the creative tension between what is and what they want to become.⁷⁸

The battalion's shared vision is insignificant if the individual members cannot work together to make the picture the organization wishes to create. The commonality of purpose and understanding of how each individual relates to others in the organization stimulates complementary efforts. In order to achieve these complementary efforts, the organization's shared vision must be an extension of each individual's personal vision

oriented to the higher purpose of the organization. Senge believes this alignment of personal visions to become the organization's shared vision is imperative before the power of the group becomes possible.⁷⁹ "Team Learning is the process of aligning and developing the capacity of a team to create the results its members truly desire."⁸⁰

Team learning provides the intellectual power of the organization to understand and function in a complex, rapidly changing environment. In order to achieve this, the group of individuals must function as a team. The Army has long understood the importance of the team and its performance in warfighting. As General George S. Patton said, "An Army is a team; it lives, sleeps, eats, and fights as a team."⁸¹ Teamwork is considered a pillar of excellence for outstanding battalions. In excellent battalions there was a sense of teamwork which closely resembled the cooperation between close friends.⁸²

The importance of an effective staff and commander team cannot be underestimated. A team is defined as two or more people working toward a common goal or objective where each member must perform specific roles and requires a dependency upon each other to accomplish the mission.⁸³ In short, the team seeks to accomplish the shared vision held by the individual members. Teamwork is affected by the cohesion of the group. Some conditions for developing teamwork in a battle staff are for the staff to have common objectives shared by all (shared vision), shared norms of performance and behavior, a system of potential rewards for teamwork, a stable organizational system, and shared experiences of success.⁸⁴ These conditions provide the climate for the team to effectively perform and "enhances their capability to resist pressure and perform under the stress of combat."⁸⁵ Team performance skills are critical skills required for the battle staff. These skills are primarily skill of coordination and situational awareness skills which

“require all members to key off of, act and react off other staff members.”⁸⁶ These primary coordination and situational skills are what allows the staff to provide necessary information to the commander to visualize the battle and to provide the necessary interface for synchronization of the combined arms.⁸⁷ “A criterion of merit of command staff performance is integrating the BOS (Battlefield Operating Systems) to achieve warfighting success consistent with the intent of the chain of command.”⁸⁸ To accomplish this, staffs must operate as a team.

The power of the team is what allows the nerve center to be greater than the sum of its individual parts. Senge believes one of the most important components necessary to develop team learning in an organization is the presence of dialogue. “Dialogue is a quality of communication in which team members suspend assumptions and enter into a genuine thinking together.” This free flowing communication within a group allows “the group to discover insights not attainable individually.”⁸⁹ In order to achieve dialogue individuals must clearly understand their individual and group mental models as well as the learning disabilities present in the organization. Most organizations spend the majority of their communications in discussion. Discussion is characterized by individual attempting to “win” his point over the other. Stephen Covey, in *The 7 Habits of Highly Effective People*, writes it is first important to understand before trying to be understood.⁹⁰ This is the heart of dialogue.

The Army understood the importance of dialogue many years ago. The After Action Review concentrates on establishing an environment in which soldiers and leaders openly discuss what happened in order to allow every one to understand and improve performance. “This shared learning improves task proficiency and promotes unit bonding

and esprit.”⁹¹ The guide to After Action Reviews specifically cautions against using the critique. The critique offers only one side of the argument and “stifles learning and team building.”⁹²

Much like achieving dialogue in the After Action Review, the battle staff and commander must focus their relationship in the same manner. Dialogue is essential to developing the capacity of the group to create the results the team wishes to achieve. In addition to dialogue, team learning is characterized by insightful thinking about complex issues as well as understanding the role of team members on other teams to continually foster team learning.⁹³ The leverage for the commander is to foster this environment in his organization. The commander must establish a climate which creates “mutual trust, cooperation and teamwork.”⁹⁴

Team learning allows the commander to overcome the complexity of the battlefield. The commander and staff, acting as one mind, lead by the commander’s vision allows the battalion nerve center to focus on innovative creative solutions during battlefield problem solving. The combination of the individuals, through the process of team learning, makes the battalion nerve center greater than the sum of its parts. The power of team learning explodes when harnessed with the process of systems thinking.

Systems thinking is the thread which weaves the disciplines of mental models, shared vision, personal mastery, and team learning together to create the learning organization. This is also the thread necessary to assess and understand the relationship within the battalion command system. Systems thinking provides individuals with the means to deal with complexity.⁹⁵ It is the cornerstone for how learning organizations think about their world.⁹⁶ This method of thinking provides organizations a means to see

interrelationships instead of linear cause and effect relationships and to understanding the process of change instead of snapshots of reactive events.⁹⁷ A system is defined as a “collection of parts which interact with each other to function as a whole.”⁹⁸ A common example for explaining a system is to use an elephant. If you cut an elephant in half, you are not left with two elephants. Likewise, if you cut a staff in half or ignore pieces of it, you are not left with two equally capable staffs.

Within the infantry battalion, the command and control system includes the battalion commander, the staff, and the subordinate company commanders. Each portion of the system must function harmoniously in order to cope with the chaos and complexity on the modern battlefield.⁹⁹ In many cases, outfits focus home-station training on warfighting skills which focus on individual, crew, platoon, and company mission essential tasks.¹⁰⁰ Additionally, when a unit does conduct a field exercise or situational training exercise, “the necessary command and staff training to task, condition, and standard is assumed to occur.”¹⁰¹ As mentioned previously, commanders and staff are rarely stressed enough in home-station training to realize the weaknesses in the command and staff team. This is an important aspect to consider if you treat the battalion and its units as a combat system. Most systems by nature are self stabilizing. They remain stable over a wide range of conditions, but fail abruptly when they are pushed beyond their limits.¹⁰²

Consider the relationship between the commander, the subordinate company commanders, and the staff. The battalion operational concept is formulated and communicated through the commander’s vision and intent. The battalion staff assists the commander in formulating his battlefield visualization by providing the necessary

information, limitations, and capabilities in order to assist the commander in achieving the best possible visualization of the battlefield. If the commander has spent the majority of his time training and creating a shared vision with the companies, he walks a narrow tight rope balancing the effects of poor staff training. At some time, the staff will incompletely or inaccurately provide the commander with the necessary information to understand the battlefield. On the complex, rapidly changing, and highly emergent battlefield, the untrained command and staff team is likely to reach system failure sooner than later.

Consequently, it is necessary to represent the staff as an element of combat power. For a battle staff to support the commander and staff system, it must be competent. The competence of a battle staff in performing its functions as a unified, integrated system can be a major determinant of combat effectiveness.¹⁰³ When looking at the combat battalion as an open system, the battle staff becomes the information filters, controllers, and directors of organizational processes which are critical to combat effectiveness.¹⁰⁴

Systems thinking allows the commander and staff to create the combat effective battle staff system by integrating the disciplines of the learning organization in order to enhance battle staff performance. As stated earlier, competency is comprised of role specific individual skills, team skills, and integration. Presence of these skills allows the staff to function in highly emergent situations on the modern battlefield. Integration is the force which "melds the roles, attitudes, and activities of the members."¹⁰⁵ Olmstead described the state of integration as a developmental process. It is the process which

provides for the maintenance of structure and function and prevents individual staff members or sub-units from working at cross purposes.¹⁰⁶

The battalion commander and staff must create a command and staff team which effectively weaves the strands of the five disciplines into the tapestry of the learning organization. The battalion nerve center must foster an environment of personal mastery in order to promote confidence and competence in the basic role specific individual skills. Mastery in individual skills provides the necessary foundation for individual staff officers to function effectively as a member of the team. It arms the individual staff officer with the tactical and technical skills which allow him to effectively support the commander and assist the commander in synchronizing the battle.¹⁰⁷ The commander provides a personal vision for combat operations of how the unit will fight and develops a shared vision of how the unit will train. The staff, developed as a team, uses the shared vision, understanding the mental models and learning disabilities prevalent in the organization, and recognizing the role of teamwork in congruence with the commander to develop team skills which allow for effective coordination between the team members. Team performance skills; however, essentially remain coordination skills of the individual enabling each member to effectively mesh their activities together.¹⁰⁸ The final thread is to apply team learning to systems thinking to create the battle staff which effectively integrates the four disciplines to perform effectively under the rigors and stresses of a combat environment. In retrospect the battle staff - commander team emerges to share the qualities of a learning organization. The battalion nerve center learns to create its future instead of reacting to it.

"Your staff won't win the war for you, but it can prevent you from winning."¹⁰⁹
BG John E. Miller

V. CONCLUSION AND RECOMMENDATIONS

In order to improve performance in tactical decision making of complex tactical problems, the infantry battalion must become a learning organization. As former Chief of Staff of the Army General Gordon R. Sullivan wrote in *Seeing The Elephant*, "To effect the continuous transformation required by today's environment, the Army had to become a learning organization in every sense. Such an organization does not resist change; it welcomes change as a way to improve."¹¹⁰

Establishing a climate of openness, creating a mini-learning organization within the battalion staff, subordinate leader empowerment in decision making, and microworlds are all means to create the conditions for establishing a learning environment. They all merge together through the leader and his role in developing and supporting the environment for the learning environment.

One step to building a learning organization is to establish a climate of openness. Openness in an organization is characterized as participative openness and reflective openness. Participative openness is characterized by the individuals ability to speak openly and honestly about important issues.¹¹¹ Reflective openness is our ability to continually challenge our own as well as the group thinking. It requires the individual and group to recognize any held certainty about the world as a hypothesis.¹¹² While participative openness is essential for allowing individuals to speak their mind and to surface issues, it rarely results in better decision making because it does not influence the thinking behind

peoples decisions.¹¹³ The commander can establish a climate of openness to enhance decision making and establishing a shared vision with small group. The battalion commander could began with the executive officer and operations officer initially. Senge wrote: "When small groups of people (as few as two or three) become deeply committed and open they create a microcosm of a learning organization."¹¹⁴ By beginning with his key field grade staff officers, the battalion commander begins the process of learning.

Another important attribute to create a learning organization is "localness." Localness is the process of extending decision making authority and fostering risk taking as far down the organizational hierarchy as possible. This is essential for in times of rapid change.¹¹⁵ In combat, decentralized decision making provides leaders the flexibility and initiative to adapt to the fluid and rapidly changing situations on the battlefield. This leadership quality is not created on the battlefield, but fostered each day in great organizations. It unleashes people's creativity and commitment to solve problems; yet, focuses them through the organizations shared vision and sense of purpose. This allows commanders to stay out of the day to day details of running the battalion. Localness encourages people to take risks in order to develop initiative and to learn.¹¹⁶ It allows the commander to maintain a strategic sense of direction of where they (the battalion) want to go.¹¹⁷

Another method of creating the learning organization is through the use of microworlds. Microworlds enable individuals to begin learning by doing, but only works if the "feedback is rapid and unambiguous."¹¹⁸ Microworlds use simulations in order to test decision making. In the battalion staff, that simply means faithfully conducting staff decision making drills. It may include simulations such as JANUS, sand table exercises,

or off the shelf commercial “war game” simulations. Using simulations allows the staff group to conduct planning in a time compressed environment as the skills of the staff improve. It allows the commander and staff to observe their performance and test their decisions. Finally, through the use of the after action review, it allows the commander and staff to “learn” from their experience.

Lastly, the commander provides the final key to unlocking the learning organization in his battalion. The commander fills the role of designer and teacher in the organization. He is responsible for designing the learning process and teaches people in order to foster learning.¹¹⁹ The commander uses his overarching sense of purpose, vision, and values to maintain the organization’s focus. He provides the time to foster learning and reflective thought in the organization. He sets the example by allowing subordinates to handle simple decision making while he focuses on the complex, divergent issues of the organization.¹²⁰

Building the battalion nerve center as a learning organization is not an easy task. Nor does it provide a panacea for solving all problems. It is a tough job which requires many members of the organization to leave their preconceived notions and attitudes behind. It forces organizations to decide what is important. However, the results for the commander - staff team are well worth the effort. It provides the environment and means for the battalion nerve center to create its own future by improving their ability to make decisions in a complex, uncertain, and lethal battlefield.

ENDNOTES

¹U.S. Army Field Manual 101-5 Staff Officers Field Manual, *The Staff and Combat Orders* (Washington DC: Government Printing Office, 1940), 37.

²U.S. Army Field Manual 100-5, *Operations* (Washington DC: Department of the Army, 1993), G-1.

³U.S. Army Battle Command Laboratory Pamphlet, *Leadership and Decision Making for War and Operations Other Than War* (Fort Leavenworth, KS: Battle Command Laboratory, April 1994), i.

⁴U.S. Army Field Manual 101-5, *Staff Organizations and Operations (Final Draft)* (FT Leavenworth, KS: Command and General Staff College, 1996), 5-3.

⁵LTC John D. Rosenberger, "The Burden our Soldiers Bear: Observations of a Senior Trainer" in *CTC Quarterly Bulletin 95-11* (FT. Leavenworth, KS: Center of Army Lessons Learned) Sep 95, I-9.

⁶U.S. Army Field Manual 101-5 (Final Draft), 5-46.

⁷Peter M. Senge, *The Fifth Discipline* (New York: Doubleday, 1990), 4.

⁸Joseph A. Olmstead, *Battle Staff Integration* (Alexandria, VA: Institute For Defense Analyses, 1992), iii, IDA Paper P 2560.

⁹Ibid. The assessment of Dr. Olmstead's research project as the most comprehensive battle staff study is based solely on my judgment. I have reviewed a significant number of research reports involving command and control and battle staff and found his to be the most comprehensive.

¹⁰Jon Grossman, *Battalion - Level Command and Control at the National Training Center* (Santa Monica, CA: RAND Corporation, 1994), 3, prepared for the US Army Contract Number MDA903-91-C-0006. Jon Grossman's analysis of the shortcomings in using take home packages are still valid today. Additionally, it should be noted most THP's rarely assess or discuss commander competency(negative comments) in battle command. Most specific comments for the commander are probably given privately. Consequently, it was difficult to assess the commander's true impact on the command and control system.

¹¹The use of this terminology for battle staff integration was identified by myself initially during my research and discovered again in a monograph MAJ Gary Sauer, "Battle Staff Integration: The Key to Battle Tracking in Battalion Command Posts." (School of Advanced Military Studies, 1995), 39.

¹²Olmstead, S-2 and S-3.

¹³The author determined this percentage by recognizing negative comments regarding two or more primary or special staff sections as an overall poor battle staff integration.

¹⁴Grossman, 9.

¹⁵Ibid., 11.

¹⁶*Joint Readiness Training Center Take Home Package* (Fort Polk, LA: JRTC, 1996). Due to the nature of the training center take home package, disclosure of the unit and rotation number is unauthorized. This condition was placed on the author before access to the take home packages could be released. It is critical to protect the units from disclosure to maintain an open, learning environment at the training centers.

¹⁷Thomas J. Thompson and others, *Battle Staff Training and Synchronization in Light Infantry Battalions and Task Forces* (Alexandria, VA: ARI, 1991) 1, Research Report 1607. This research was further substantiated by additional surveys conducted with officers at the Infantry and Armor Advanced Courses which suggested this was a systemic problem for staffs.

¹⁸The author assessed the 67 percent figure. My criteria for this was negative comments on a specific functional staff section responsibility. For example, within the THPs, the O/Cs typically assess the battalion by BOS and specifically comment on the staff officer responsible. Several examples would include: the S2 was unable to provide the commander with a realistic, timely enemy SITEMP, the FSO was unable to provide adequate fire planning necessary to synchronize with the maneuver plan, and the S1 and S4 were unable to provide realistic CSS estimates to the commander. It should be noted the JRTC found often found many more staff competence deficiencies than the NTC O/Cs.

¹⁹Once again this must be quantified in the context of the THPs. Over 50 percent of the time O/Cs made no comment regarding the battalion commander's performance during the rotation.

²⁰Grossman, 10.

²¹*JRTC THP*, 1996.

²²*National Training Center Take Home Package* (Fort Irwin, CA: NTC, 1996).

²³Thompson, 32-33. This is an interesting observation taken by the ARI while observing and surveying units at home station training in 1990. The key note is commanders and

staff cannot control the training center tempo to compensate for deficiencies. Consequently, at the training centers crisis management becomes the norm.

²⁴Olmstead, I-3

²⁵John W. Slocum, Jr., Michael McGill, and David T. Lei, "The New Learning Strategy: Anytime, Anything, Anywhere," *Organizational Dynamics*, (Winter 1995): 35.

²⁶Senge, 3.

²⁷Te Hauara, "Building Learning Organizations," Iss 274 (12 October 94): 1.

²⁸Senge, 140.

²⁹Ibid., 9.

³⁰Ibid., 236.

³¹Ibid., 8.

³²Ibid., 9.

³³Ibid., 12.

³⁴Mikhail Tukhachevski, *New Problems in Warfare* (Art of War Colloquium. Carlisle Barracks, PA: US Army War College, 1983), 27. (Reprinted by US Army Command and Staff College - School of Advanced Military Studies.)

³⁵Ibid., 17.

³⁶Ibid., 18.

³⁷Ibid., 19-20.

³⁸Ibid., 18.

³⁹Ibid., 20.

⁴⁰Ibid., 21.

⁴¹Ibid., 22.

⁴²Ibid., 23.

⁴³Ibid.

⁴⁴Ibid., 63.

⁴⁵Ibid., 24-25. This was paraphrased in the Senge. The original concept came from Chris Argyris, *Overcoming Organizational Defenses* (New York: Prentice Hall, 1990).

⁴⁶U.S. Army Field Manual 22-9, *Soldier Performance in Continuous Operations* (Washington, DC: Department of the Army, 1991), 2-2. Continuous sleep deprivation affects remembering, choosing, assessing action effectiveness, reasoning, and new problem-solving.

⁴⁷Carl H. Builder, *The Masks of War* (Baltimore: John Hopkins University Press, 1989), 7.

⁴⁸Ibid., 19-20.

⁴⁹Ibid., 188.

⁵⁰Colonel Charles M. Burke, "The 'Bondage' of Tradition," *Military Review*, July-August 1995, 10.

⁵¹Colonel John H. Northrop, "Redesigning Army Branch Training," *Military Review*, July-August 1995, 54.

⁵²U.S. Department of the Army Center of Army Lessons Learned (CALL), *NTC Priority Trends* (Fort Leavenworth, KS: U.S. Army Combined Arms Command, 4QFY94 - 2QFY96), N-41.

⁵³Ibid., N-42.

⁵⁴General Dennis J. Reimer, "Leadership for the 21st Century: Empowerment, Environment and the Golden Rule," *Military Review*, Jan-Feb 1996, 5.

⁵⁵GEN Bruce Clarke, quoted in Department of the Army Pamphlet 600-65 *Leadership* (Washington DC: Department of the Army, 1985), 8.

⁵⁶Charlotte Roberts and others, eds., *The Fifth Discipline Field Book* (New York: Doubleday, 1994), 239.

⁵⁷Ibid., 237.

⁵⁸Ralph Waldo Emerson as quoted by Stephen R. Covey, *The Seven Habits of Highly Effective People* (New York: Simon and Schuster, 1989), 22.

⁵⁹Senge, 142.

⁶⁰LTG John E. Miller and MAJ Kurt C. Reitingen, "Force XXI Battle Command," *Military Review*, July-August 1995, 6.

⁶¹U.S. Army Field Manual 101-5 (Final Draft), 4-5.

⁶²Olmstead, IV-10.

⁶³Thompson, 35.

⁶⁴NTC THP, 1996.

⁶⁵Senge, 172.

⁶⁶GEN William E. Depuy, "11 Men 1 Mind," *Selected Papers of William Depuy* (FT Leavenworth, KS: Combat Studies Institute, 1994) 17.

⁶⁷Senge, 206.

⁶⁸*Ibid.*, 209.

⁶⁹James A. Belasco, *Teaching The Elephant To Dance* (New York: Crown Publishers, Inc., 1990) 99.

⁷⁰MAJ Jerry Simonsen, CPT Herbert Frandsen, and CPT David Hoopengardner, "Excellence in Combat Arms" (Naval Post Graduate School, Monterey, CA, 1984), 24.

⁷¹*Ibid.*, 25.

⁷²MG David C. Meade and LTC William C. David, "Developing a Supercharged Battalion" (Unpublished manuscript) p.1. While this paper is unpublished, it was published as a four part article in *Infantry* magazine. The article has been polished since the original and the basic concepts and theme remains constant throughout. (William C. David, "Preparing a Battalion for Combat," *Infantry*, May-June 1995, 25-30)

⁷³*Ibid.*, 11.

⁷⁴Senge, 211.

⁷⁵*Ibid.*

⁷⁶US Army TRADOC Pamphlet 525-100-2, *Leadership and Command on the Battlefield* (Fort Monroe, VA: TRADOC, 1993) 6.

⁷⁷Miller, 8.

⁷⁸Senge, 226.

⁷⁹Ibid., 234-235.

⁸⁰Senge, 236.

⁸¹George S. Patton Jr. Speech to Third US Army, 1944. Quoted in *Battle Command Laboratory Commander's Guide*, 2-44.

⁸²Simonsen, 42.

⁸³Olmstead, X-8.

⁸⁴Ibid., X-12

⁸⁵Ibid., X-12.

⁸⁶Ibid., X-11.

⁸⁷Edgar M. Johnson, Technical Director, *Tactical Command and Control Process* (Ft Leavenworth, KS: US Army Research Institute, 1992), 19, Research Product 92-06.

⁸⁸LTG(Ret.) Frederic J. Brown, *Training Third Wave Landpower: Structured Training* (Alexandria, VA: Institute For Defense Analysis, 1993), 5-4 and 5-5, IDA Paper P-2947.

⁸⁹Senge, 10

⁹⁰Covey, 237.

⁹¹US Army Training Circular 25-30, *A Leader's Guide To After-Action Reviews* (Washington DC: Headquarters, Department of the Army, 1993), 1-1.

⁹²Ibid., 1-2.

⁹³Senge, 236.

⁹⁴US Army Field Manual 101-5 (Final Draft), 4-1.

⁹⁵Senge, 69.

⁹⁶ Ibid.

⁹⁷ Ibid., 73.

⁹⁸ Draper L. Kauffman, Jr., *Systems I: An Introduction to Systems Thinking*, (St. Paul: Future Systems, Inc., 1980) 1.

⁹⁹ Olmstead, I-2

¹⁰⁰ MAJ Kurt W. Miller, "Staff Training: Observations from the NTC," *Infantry*, Jan-Feb 1995, 41.

¹⁰¹ Brown, 2-4.

¹⁰² Kauffman, 13.

¹⁰³ Olmstead, S-1.

¹⁰⁴ Ibid., X-7.

¹⁰⁵ Ibid., X-9.

¹⁰⁶ Ibid.

¹⁰⁷ Thompson, 187.

¹⁰⁸ Olmstead, IV-11.

¹⁰⁹ BG John E. Miller, statement for the opening Tactical Commander's Development Course (4 February 1991) quoted in Thompson, 30.

¹¹⁰ Gordan R. Sullivan and Anthony M. Coroalles, *Seeing The Elephant: Leading America's Army Into the Twenty-First Century* (New Hampshire: Puritan Press, 1995), 30-31.

¹¹¹ Senge, 274.

¹¹² Ibid., 277.

¹¹³ Ibid.

¹¹⁴ Ibid., 285.

¹¹⁵ Ibid., 287-288.

¹¹⁶ Simonsen, 29-30.

¹¹⁷ Ibid., 22.

¹¹⁸ Senge, 313.

¹¹⁹ Ibid., 356.

¹²⁰ Ibid., 304.

BIBLIOGRAPHY

BOOKS

- Belasaco, James D. *Teaching the Elephant to Dance: Empowering Change in Your Organization*. New York: Crown Publishers, Inc., 1990.
- Builder, Carl H. *The Masks of War*. Baltimore: John Hopkins University Press, 1989.
- Clarke, Bruce C. *Guidelines for the Leader and Commander*. Harrisburg, PA: Stackpole Books, 1963.
- Covey, Stephen R. *The 7 Habits of Highly Effective People*. New York: Simon & Schuster, 1989.
- Dupuy, Trevor N. *Understanding War*. New York: Paragon House Publishers, 1987.
- Bertalanfy, Ludwig von. *General Systems Theory*. New York: George Braziller, Inc., 1968.
- Hittle, James D. *The Military Staff*. Connecticut: Greenwood Press, 1975.
- Hunt, James G. and John D. Blair, eds. *Leadership on the Future Battlefield*. Washington: International Defense Publishers, 1985.
- Ivanov, D.A., V.P. Savel'yev, and P.V. Shemanskiy. *Fundamentals of Tactical Command and Control. - A Soviet View*. Moscow: Translated by the USAF, 1977.
- Kauffman, Jr., Draper L. *Systems I: An Introduction to Systems Thinking*. St Paul: Future Systems, Inc., 1980.
- Kouzes, James M. and Barry Z. Posner. *The Leadership Challenge: How To Get Things Done in Organizations*. San Francisco: Jossey-Bass Publishers, 1987.
- Peters, Tom and Robert H. Waterman. *In Search of Excellence*. New York: Harper & Row, 1982.
- Senge, Peter M. *The Fifth Discipline - The Art and Practice of the Learning Organization*. New York: Currency Doubleday, 1990.
- Senge, Peter M., Art Kleiner, Charlotte Roberts, Richard B. Ross, and Bryan J. Smith. *The Fifth Discipline Fieldbook*. New York: Doubleday, 1994.

Sullivan, Gordan R. and Anthony M. Coroalles, *Seeing The Elephant: Leading America's Army Into the Twenty-First Century*, New Hampshire: Puritan Press, 1995.

Taylor, Robert L. and William E. Rosenbach, eds. *Military Leadership: In Pursuit of Excellence*, 2d ed. Boulder: Westview Press, Inc., 1992.

Van Crevald, Martin L. *Command In War*. Massachusetts: Harvard University Press, 1985.

MONOGRAPHS AND RESEARCH STUDIES

Antal, John F. "Combat Orders: An Analysis of the Tactical Orders Process." MMAS Thesis, Fort Leavenworth, 1990.

Brown, Frederic J. *Training Third Wave Landpower: Structured Training*. Alexandria VA: Institute For Defense Analyses. 1993. IDA Paper P-2947.

Crain, William F. "Battle Staff Operations: Synchronization of Planning at Battalion and Brigade Level." MMAS Thesis, Fort Leavenworth, 1989.

Johnson, Edgar M.(Technical Director). *Tactical Command and Control Process*. Fort Leavenworth, KS: Army Research Institute for Behavioral and Social Sciences. 1992. Research Product 92-06.

Olmstead, Joseph A. *Battle Staff Integration*. Alexandria, VA: Institute for Defense Analyses, 1992. IDA Paper P-2560.

Sauer, Gary G. "Battle Staff Integration: The Key to Battle-Tracking in Battalion Command Posts." School of Advanced Military Studies, Fort Leavenworth, KS, 1995.

Simonsen, Jerry MAJ, CPT Herbert Frandsen, and CPT David Hoopengardner, "Excellence in Combat Arms." Naval Post Graduate School, Monterey, CA, 1984.

Speer, William H. "Back to Basics: A Five Dimensional Framework For Developing and Maintaining a High Performing Battalion or Brigade Staff." MMAS Thesis, Fort Leavenworth, 1984.

Thompson, Thomas J., George Thompson, Robert J. Pleban, and Patrick J. Valentine. *Battle Staff Training and Synchronization in Light Infantry Battalions and Task Forces*. Fort Benning, GA: Army Research Institute, 1991. Research Report 1607.

Tukhachevski, Mikhail. *New Problems in Warfare Art of War* Colloquium, Carlisle Barracks, PA: US Army War College, 1983. Reprinted by US Army Command and Staff College - School of Advanced Military Studies.

Turchiano, Nicholas J. COL, LTC Huey B. Scott, LTC James M. Gass, and LTC Lawson Magruder. "Excellence In Brigades." Carlisle Barracks: U.S. Army War College, 1986.

Wojdakowski, Walter. "A Battalion Staff Prepared For War: The Key to Combined Arms Success on the Modern Tactical Battlefield." School of Advanced Military Studies Monograph, Fort Leavenworth, KS, 1988.

MILITARY MANUALS, PUBLICATIONS, AND GOVERNMENT DOCUMENTS

Army Research Institute. *Commander's Battle Staff Handbook*. Fort Benning, GA: US Army Research Institute, May 1993.

U.S. Department of the Army. *Battle Command - Leadership and Decision Making for War and Operations Other Than War*. Fort Leavenworth, KS: Battle Command Laboratory, 1994.

U.S. Department of the Army. TRADOC Pamphlet 525-100-2 *Leadership and Command on the Battlefield*. Fort Monroe, VA: TRADOC, 1993.

U.S. Department of the Army. Field Manual 22-9 *Soldier Performance in Continuous Operations*. Washington DC: Department of the Army, 1991.

U.S. Department of the Army. *Battle Command Techniques and Procedures*. Fort Leavenworth, KS: Battle Command Battle Laboratory, Date unmarked - 95-96..

U.S. Department of the Army. Field Manual 25-100 *Training the Force*. Washington, DC: Government Printing Office, 1988.

U.S. Department of the Army. Field Manual 25-101 *Battle Focused Training*. Washington, DC: Government Printing Office, 1990.

U.S. Department of the Army. Field Manual 100-5 *Operations*. Washington DC: Department of the Army, 1993.

U.S. Department of the Army. FM 101-5 Staff Officers Field Manual *The Staff and Combat Orders*. Washington DC: Government Printing Office, 1940.

U.S. Department of the Army. Field Manual 101-5 *Staff Organization and Operations*. Washington DC: Department of the Army, 1984.

U.S. Department of the Army. Field Manual 101-5 *Staff Organization and Operations* (Final Draft). Fort Leavenworth, KS: Command and General Staff College, 1996.

U.S. Department of the Army. "NTC Priority Trends," *Center of Army Lessons Learned (CALL)*. Fort Leavenworth, KS: U.S. Army Combined Arms Command, 4QFY94 - 2QFY96.

U.S. Department of the Army. Training Circular 25-30 *A Leader's Guide To After-Action Reviews*. Washington DC: Department of the Army, 1993.

PROFESSIONAL LITERATURE, PERIODICALS, AND MAGAZINES

Burke, Charles M. Colonel. "The 'Bondage' of Tradition." *Military Review*, July-August 1995, 10.

Clarke, Bruce General quoted in Department of the Army Pamphlet 600-65 *Leadership*. Washington DC: Department of the Army, 1985.

David, William C. LTC and MG David C. Meade. "Developing a Supercharged Battalion." (Unpublished manuscript) 1995.

Depuy, William E. General. "11 Men 1 Mind." *Selected Papers of General William Depuy*. Compiled COL Richard M. Swain. FT Leavenworth, KS: Combat Studies Institute, 1994.

Franks, Frederick M. General. "Battle Command - A Commander's Perspective." *Military Review*, May-June 1996, 4-25.

Hendry, Chris. "Understanding and Creating Whole Organizational Change Through Learning Theory." *Human Relations* Vol. 49, No. 5 (1996): 621-641.

Keys, J. Bernard, Robert Fulmer, and Stephen Stumpf. "Microworlds and Simuworlids: Practice Fields for the Learning Organization." *Organizational Dynamics*, (Spring, 1996): 36-49.

Kuchinke, K. Peter. "Managing Learning for Performance." *Human Resource Development Quarterly* Vol. 6, No. 3 (Fall 1995): 307-316.

Mason, David H. "Scenario-based Planning: Decision Model for the Learning Organization." *Organizational Dynamics*, March-April 1994, 7-11.

Miller John E. LTG and MAJ Kurt C. Reiting. "Force XXI Battle Command." *Military Review*, July-August 95, 5-9.

Miller, Kurt W. MAJ. "Staff Training: Observations from the NTC." *Infantry*, Jan-Feb

1995, 41-42.

Northrup, John H. Colonel. "Redesigning Army Branch Training." *Military Review*, July-August 1995, 54.

Nowowiejski, Dean A. LTC. "A New Leader Development Paradigm." *Military Review*, July-August 1995, 70-75.

Reimer, Dennis J. General. "Leadership for the 21st Century: Empowerment, Environment and the Golden Rule." *Military Review*, Jan-Feb 1996, 5-9.

_____. "Soldiers Are Our Credentials." *Military Review*, Sept-Oct 1995, 4-15.

Rosenberger, John D., LTC. "The Burden our Soldiers Bear: Observations of a Senior Trainer." *CTC Quarterly Bulletin 95-11* FT. Leavenworth, KS: Center of Army Lessons Learned, (September, 1995): I-1 - I-14.

Senge, Peter M. "The Leader's New Work: Building Learning Organizations." *Sloan Management Review*, (Fall 1990): 7-23.

_____. "Leading Learning Organizations." *Executive Excellence*, April 96, 10-11.

Slocum, JR., John W., Michael McGill and David T. Lei. "The New Learning Strategy: Anytime, Anything, Anywhere." *Organizational Dynamics* Winter (1996): 33-47.

Te Hauara, "Building Learning Organizations." Iss 274 (12 October 94) 1.

TRAINING CENTER TAKE HOME PACKAGES

JRTC THP ROTATION 9601
JRTC THP ROTATION 9603
JRTC THP ROTATION 9604
JRTC THP ROTATION 9605
JRTC THP ROTATION 9607
JRTC THP ROTATION 9609

NTC THP ROTATION 9605
NTC THP ROTATION 9606
NTC THP ROTATION 9608
NTC THP ROTATION 9609
NTC THP ROTATION 9610
NTC THP ROTATION 9611